

ECONOMY OVERVIEW AND SCRUTINY PANEL

17 NOVEMBER 2023

DIGITAL INFRASTRUCTURE AND CONNECTIVITY, ANNUAL UPDATE

Summary

1. The Economy Overview and Scrutiny Panel is to be updated on the progress of the deployment of broadband and mobile digital infrastructure within Worcestershire, as well as other work being undertaken by the Digital Infrastructure and Connectivity Team to improve digital connectivity in the County.
2. Representatives from Worcestershire County Council's (the Council) Digital Infrastructure and Connectivity Team and the Cabinet Member with Responsibility for Economy, Infrastructure and Skills have been invited to the meeting to respond to any queries the Panel may have.

Background

3. The Panel last discussed Superfast Broadband on 22 November 2022.
4. The last report was the final time BT/Openreach were contractually required to present alongside the Council's team as the deployment phase of the final Superfast Worcestershire contract (Contract 3) had been completed. This update covers any matters identified in the closure process of Contract 3 and an update on the Financial Monitoring and Gainshare of all three Superfast Worcestershire contracts.
5. This report focusses on the progress made towards the national (85% by 2025) and local (90% by 2027) Gigabit Capable Broadband targets through commercial deployment and gap funded intervention; as well as matters arising from this deployment and other activity underway to accelerate broadband improvements.
6. An update on mobile telecommunications matters, including reporting on network coverage, local activity to understand and improve mobile coverage, and associated local projects is also included.

Superfast Worcestershire - Outstanding Matters Update

7. The deployment phase of the final Superfast Worcestershire contract with BT/Openreach, Contract 3 completed during 2020/21. The outstanding financial closedown of the contract was completed in summer 2023.
8. The table below shows the updated sources of capital funding directly associated with the agreed position at Contract 3 closure.

| Source of Funding | Contract 3 (pre-closure position) reported Nov 2022 | Contract 3 Final Position |
|--------------------------|---|---------------------------|
| BT | £3.6m | £3.9m** |
| Worcestershire CC | £0.6m | £0.2 + 0.3* |
| BDUK | £1.5m | £1.5m |
| Local Growth Fund | - | - |
| ERDF | £1m | £1m |
| Total | £7.7m** | £6.9m** |

* Consists of elements of Contract 1 underspend reinvestment updated at Contract 3 closure. Also, to account for the impact of price control resulting from the Ofcom Wholesale Local Access Market Review (WLAMR), it was agreed (nationwide) that the supplier, Openreach, could adjust the finance model to reflect the impact of the price reduction. As a result, it was approved, through the Change Control process, that WLAMR payment of £352,776 will be paid through gainshare clawback (if achieved), post Contract 3 deployment, as it becomes available. This will bring the potential overall cost to the Council (public funding) to £3,140,864, with the current subsidy total payments paid by the Council totalling £2,788,088.

** Final amount confirmed and agreed at Contract 3 closure.

9. The final Take-Up review point for Contract 1 occurred on 30 June 2023, with the final report expected from BT/Openreach this quarter, at which stage the Council will be due to receive the final Gainshare payment. Due to very successful take-up over the life of the contract, the total Gainshare payment anticipated on Contract 1 is c.£6.5m, noting that, a share in line with the investment funding ratio, is returned to Building Digital UK (BDUK).

10. Contract 2 addressed the more rural locations within Worcestershire, take-up and again quickly exceeded 20%. Like Contract 1, Contract 2 take-up remains very high at 76% (September 2023) with a minimal drop of only 2% in the last year. This is mainly as a result of the increase of full fibre availability through various commercial deployments within the county. The Council will continue monitoring and reviewing take-up and Gainshare on a quarterly basis, as per the reporting arrangements. A £583,695 Gainshare payment was received summer 2023, as a result of the positive take-up, however, a payment of c.£266,165 is due to be returned to BDUK imminently.

11. Contract 3, take-up of broadband has increased to over 75.93% (September 2023) – another significant increase of c.10.5% since October 2022. While the first take-up review point has now past, the Clawback Threshold was not reached, so no Gainshare was paid, this was expected as Openreach invested a higher percentage of funding. It is worth noting that the first £352,776, if achieved, will not be paid out to the Council, as a result of the agreed WLAMR impact (see above table).

12. 'Additional Services' is a further type of clawback, applicable to all three contracts, which provides a return to investors if any of the project funded infrastructure generates a profit for the supplier. The calculation for this clawback has now been agreed between Openreach and BDUK and is being reviewed by the Council before the retrospective agreements are signed and any subsequent Gainshare payments can be made.

Contracts 1, 2 and 3 take-up breakdown

| | Q3: Dec-22 | Q4: Mar-23 | Q1: Jun-23 | Q2: Sep-23 |
|------------------|------------|------------|------------|------------|
| C1 Take-Up | 83.49% | 82.97% | 82.97% | 87.14% |
| C2 Take-Up | 75.44% | 75.82% | 75.82% | 75.36% |
| C3 Take-Up | 67.82% | 71.86% | 73.75% | 75.93% |
| Combined Take-Up | 80.94% | 80.83% | 80.86% | 79.58% |

Reinvestment of Gainshare

13. Cabinet at its meeting in February 2023 reconfirmed its earlier commitment to improving digital connectivity for residents and businesses by delegating authority to the Executive Director of Economy and Infrastructure, in consultation with the Cabinet Member with Responsibility for Economy, Infrastructure and Skills to reinvest Gainshare into improving broadband coverage, digital projects and improving services for mobile users in the county.

Gigabit Broadband Progress Update

14. The Government's ambition is to achieve at least 85% gigabit capable coverage by end of 2025 and then nationwide coverage c.99% by around 2030. Gigabit coverage across the UK now tops 78% - up from 10.9% at December 2019 (source: www.thinkbroadband.com).

15. Gigabit coverage in Worcestershire has already increased from 3.8% in December 2019 to 75.1% in October 2023 (source: www.thinkbroadband.com), increasing by over 20% in the last 12 months alone, largely as a result of commercial deployments, but supplemented by the Council's projects. The Council's ambition, outlined in the Corporate Plan, remains to ensure Worcestershire increases the gigabit coverage to above the national average and reaches at least 90% by 2027.

16. Appendix 1 is a summary of broadband infrastructure availability (source: www.thinkbroadband.com), showing connectivity data with a breakdown and comparison by areas - UK, Worcestershire and the six districts in October 2023.

BDUK Project Gigabit

17. A £5bn UK Gigabit Broadband Rollout strategy was outlined by DCMS in December 2020 and published in August 2021. This looks to enable hard-to-reach communities to access lightning-fast gigabit capable broadband. In summary, it includes the following points:

- Project Gigabit, which aims to extend 1Gbps (1000Mbps) capable networks in line with Government's ambition,
 - Centrally ran procurement – with Local Bodies expected to support,
 - Majority of Worcestershire is placed in 'Lot 24', which is included in Phase 1b (one of the first ten areas announced) – up to 16,500 premises,
 - Focused on gigabit capable infrastructure,
- Rural Gigabit Voucher Scheme is currently on hold for Worcestershire due to Gigabit 'Lot 24' procurement process but will be extended to complement commercial delivery and Project Gigabit deployments from 2024.

Further information available at: [Project Gigabit - GOV.UK \(www.gov.uk\)](https://www.gov.uk).

BDUK Project Gigabit in Worcestershire

18. As part of Project Gigabit, BDUK are undertaking national, rolling Open Market Reviews (OMRs). This process was initiated in 2021, ahead of national procurements, and continues on a quarterly basis to inform the intervention areas and commercial deployments. It is centrally funded and managed.

19. Worcestershire's pre-procurement activities commenced in May 2022, and 'Lot 24' procurement launched in October 2022. The contract award is expected soon, having initially being expected in the late summer 2023. Throughout the period, Worcestershire's Digital Infrastructure and Connectivity team has provided timely information and support to BDUK's procurement.

20. Alongside commercial deployments, Project Gigabit is the main mechanism to achieve the gigabit coverage target. However, the Council expects further work and investment will be needed to achieve and exceed national and local targets, as well as providing connectivity to the very hard to reach communities. Assuming 'Lot 24' procurement concludes successfully in the next two months, the Council expects to understand what premises are not part of 'Lot 24' plans and be able to create a local strategy from summer 2024.

Community Voucher Schemes

21. The Government have also focused £210m of the Project Gigabit programme, on the Gigabit Broadband Voucher Scheme (GBVS) for rural areas. In Worcestershire, this is on hold due to the procurement process for 'Lot 24'. This additional investment will continue to support the cost of installing full fibre broadband connections for SMEs and homes in 2024 via revised vouchers now worth up to £4,500.

22. In 2020 the Council and Worcestershire's Local Economy Partnership (WLEP) supplemented the initial national voucher scheme with local top-up funding (£2.1m) to support Worcestershire's drive to get high-speed broadband out to the most rural parts of the County. This additional funding was used to 'top up' the Government's scheme.

23. To date, Worcestershire has secured over £7m worth of vouchers and will continue to work with communities once the voucher scheme is re-opened. More in depth information can be read in previous scrutiny papers.

24. 80 community projects have been delivered (c.5,300 premises), with two remaining in the final stages of deployment. About 35 projects required our top-up funding. Out of the allocated £2.1m of top up funding, approx. £1.5m has already been allocated. The last few projects' finances are being finalised by suppliers, which will allow the team to confirm the exact amount of the top up funding remaining.

GigaHubs Fund

25. The GigaHubs project is part of DSIT's Project Gigabit. GigaHubs has £110m available to connect public sector buildings in hard-to-reach parts of the UK such as GP surgeries, libraries and schools.

26. Nottinghamshire County Council are the regional lead for the Midlands collaboration group (including Worcestershire), on the £8m grant from the Department of Science, Innovation and Technology (DSIT) for sites across the region. A contract has been awarded to a supplier who is working on a deployment plan for all sites identified. Currently, there are 13 sites in scope for Worcestershire. A similar GigaHubs style scheme is being operated nationally by the Department for Education, who are liaising with the Council's Connectivity Team around eligible premises.

Commercial operators across Worcestershire

27. The Digital Infrastructure and Connectivity Team continues to work with commercial broadband operators to understand and assist with their commercial deployment and making Worcestershire an easier place to invest.

28. Several operators have announced their investments for Worcestershire, these are listed below, a number of other operators also have network builds underway or planned, however these are either smaller in scale or lack clarity to be listed here:

- **Openreach** – remain committed to building digital infrastructure for the UK and have announced an ambitious plan to deliver full fibre broadband to 25 million homes and businesses across the UK by December 2026. Details of Openreach's plan can be found on their website: <https://www.openreach.com/fibre-broadband/where-when-building-ultrafast-full-fibre-broadband>.
- **Airband** – an alternative network provider, with headquarters in Droitwich, aim to cover 600,000 UK premises in rural areas via a mix of fixed wireless access (FWA) and fibre to the premises (FTTP) broadband networks by the end of 2025. Some of the previously publicised deployment includes villages around Pershore e.g. *Crothorne; Bredon Upton, Ryall and the surrounding areas*.
- **Full Fibre Ltd** – aim to cover "at least" 500,000 premises by 2025. Over 95,000 premises are in Worcestershire, including e.g. *Droitwich, Stourport, Evesham, Malvern, Pershore, Wychbold, Broadway and Honeybourne*.
- **CityFibre** – have completed large parts of their £21m rollout around *Worcester City* (although currently on hold while they are appointing a new contractor).
- **Zzoomm** – *Bewdley* build is now complete. More areas are being considered.
- **Gigaclear** – *Broadway* build is currently underway.
- **Digital Infrastructure / BeFibre** – are progressing their Worcester build. In October 2023, the supplier announced their merger with Full Fibre Ltd.
- **LitFibre** – *Evesham* build is largely complete and *Redditch* build is ongoing.
- **Virgin Media O2** – plan to upgrade their fixed network to full fibre by 2028. Further progress is planned through Virgin Media O2 sister company Nexfibre.

29. The Council recognise 'change' can be an emotive subject in communities. New telegraph poles or mobile masts can be seen to have a negative visual impact, with mobile phone masts and '5G' causing some individuals to raise health concerns. Councillors are encouraged to raise awareness of the availability and benefits of the

improved digital infrastructure being deployed over the coming years within Worcestershire through commercial and public funding deployments.

30. From November 2023, the Digital Infrastructure and Connectivity Team will review planning applications made to the District Councils for mobile masts and highlight these to the Councillor for that area. A briefing note containing additional details to the specific application and a list of FAQs will be provided to help Councillors respond to questions from their constituents, should they be contacted.

31. In addition to engaging with the operators, joint working takes place with County and district teams around matters such as:

- ensuring broadband and mobile infrastructure considerations are included in Local Development Plans,
- that projects are in place to support the adoption of broadband and connectivity into their operations, and
- coordinating with Highways colleagues to minimise disruption to the highway and protect council assets.

32. The Universal Service Obligation (USO) remains a nationwide measure intended to fill the gap left by the Government’s existing broadband roll-out programmes. It aims to deliver improved broadband connections to the hardest to reach premises in the UK, specifically those with less than 10Mbps download speed and less than 1Mbps upload speed – this is currently 0.6% of Worcestershire premises. A very helpful guide is available on [Ofcom’s website](#).

33. On 2 October, DSIT launched two consultations, one on the Broadband USO and one setting out its proposed policy approach to connecting very hard to reach (VHTR) premises across the UK. The Government’s aim is to use these consultations to understand how the industry and affected stakeholder groups respond to its current proposed policy direction and future policy interventions.

34. The Panel is reminded, that Openreach are progressing their announced Public Switched Telephone Network (PSTN) and Integrated Services Digital Network (ISDN) network switch offs, with the target date of December 2025. Some areas have already stopped selling new services over PSTN and ISDN networks. It is expected that the majority of services will be capable of being switched across to the new ‘digital’ networks, however users are encouraged to check with their equipment or service provider and various projects are ongoing to understand the impact of the PSTN/ISDN switch off (internally and externally).

Mobile

35. According to the website www.signalchecker.co.uk, Worcestershire is ranked the 24th best area for mobile coverage in the UK out of 96 areas, three better than last year; their website provides the coverage information in the below table (It is not clear if this is reported as geographic coverage or by population).

| Operator | Indoor or Outdoor | 3G | 4G | 5G |
|--------------------------|-------------------|-----------|-----------|----------------|
| Three | Indoor | 94.1% (-) | 79.3% (-) | 39.8% (+11.8%) |
| Three | Outdoor | 94.1% (-) | 79.5% (-) | 39.8% (+11.8%) |
| O2 | Indoor | 88% (-) | 92.9% (-) | 1.4% (+0.5%) |
| O2 | Outdoor | 99.8% (-) | 100% (-) | 1.4% (+0.5%) |
| Vodafone | Indoor | 90.6% (-) | 92.1% (-) | 24.2% (+7.0%) |

| | | | | |
|----------------------|----------------|------------------|-----------------|-----------------------|
| Vodafone | Outdoor | 99.6% (-) | 99.9% (-) | 24.2% (+7.0%) |
| EE | Indoor | 82.5% (-) | 98.1% (-) | 84% (+19.1%) |
| EE | Outdoor | 96.5% (-) | 100% (-) | 84% (+19.1%) |
| All Providers | Indoor | 99.8% (-) | 100% (-) | 86.8% (+14.8%) |
| All Providers | Outdoor | 100% (-) | 100% (-) | 86.8% (+14.8%) |

Note: Figures correct October 2023. Percentage change in coverage since 2022 is in brackets.

36. Contact with residents, business owners and available data shows that, as services move online, people living and working in Worcestershire do not always receive the mobile connectivity they need or want. The Council recognises the data shown above may not reflect the experiences on the ground and are also of the view that modelled data from Ofcom and mobile operator is overestimated, this view is supported from the Council's own drive trials in 2017 and 2019.

37. Following on from previous work conducted by the Council, as detailed in previous scrutiny reports, an important part of the Council's strategy is to investigate mobile coverage and performance to form an up to date and independent view. The Council are starting this journey and have led on the set up, in partnership with 10 other neighbouring councils of a Dynamic Purchasing System (DPS). The DPS will allow partners to call off services to investigate real-world mobile coverage and performance, so that they can focus attention on possible solutions in the most effective way in 2024 and beyond. Currently, as data and sources vary and do not always reflect reality, it is challenging to answer fully the question around where services do not meet expectations. The Understanding Mobile Connectivity DPS aims to work alongside Ofcom to support their national findings and help with discussions with the Mobile Network Operators (MNOs) and their supply chain.

38. To support the deployment of mobile networks, the team arranged a session for mobile industry experts to speak with Planners in Worcestershire (Spring 2021), to better understand the process mobile operators and their agents go through when proposing new mast sites, why new sites are required and providing the opportunity for Planners to raise questions on site design.. As well as providing content for internal council policies and guidance that are under review e.g. the Street Scene Design Guide.

39. Teams within Economy and Infrastructure have worked with local provider Airband, enabling them to trial a high speed Fixed Wireless Access (FWA) in Fernhill Heath, where 64 premises with existing deployment challenges (e.g. Section 58 on newly re-surfaced footpath) gained access to ultrafast speeds. Once the network design was complete, deployment of the network was swift with minimal disruptions.

40. Following on from this success, Airband are interested in a commercial deployment of the technology in Worcestershire. Advantages of the FWA solution are its non-invasive nature utilising existing street assets such as lamp posts, eliminating the requirement for extensive road works and new poles, increasing speed of deployment and minimising disruptions for residents.

41. The planned sunsetting of 2G and 3G networks is underway. 3G networks are already being switched off, with 2G expected by 2030. This is a further justification for the need to ensure robust 4G and 5G networks are being deployed and geographic areas that receive no 4G coverage i.e. 'not spots,' are tackled. The switch off of these networks is justified by the operators as supporting their future sustainability plans, as an example, one operator claims 3G currently makes up over 75% of the energy costs within their network yet carries less than 1% of the network traffic. It is important

for residents, businesses and public sector organisations in the county to understand the potential impact on their operations e.g. payment machines, sim card supported fleet management etc.

42. As mentioned above, the switch-off of the PSTN/ISDN continues and traditional analogue phone services or copper services, are already being turned off in stages. This is important for several reasons, not least the mitigation for the fixed communications network during a power-cut is to use 'mobile', which in rural areas presents potential issues with increased power cuts but also increased mobile 'not-spots'.

43. There is a national drive to improve 4G coverage, through the Shared Rural Network (SRN) programme, <https://srn.org.uk/>, which aims to deliver reliable mobile broadband to 95% of the UK, addressing the digital divide by improving 4G coverage. Progress on the industry funded part of the programme continues. As part of this, mobile network operators (VMO2, Three and Vodafone) are working on new mast locations in partial not spot areas nationwide. The first sites have already been deployed, with further sites across the UK planned for 2023 and beyond. Whilst no sites were initially identified in Worcestershire, a mast application has recently been submitted and subsequently approved near Lindridge under the SRN scheme.

44. As well as trying to improve current connectivity issues, the Digital Infrastructure and Connectivity team, alongside WLEP and other partners, continue to explore the potential new connectivity technologies to support digital transformation. As previously reported, two examples of this are the Worcestershire 5G project and the West Mercia Rural 5G project.

ONE WORD (Open Network Ecosystem - Western Open RAN Deployment)

45. The Council is part of ONE WORD, a successful £9.8m award and one of the 19 projects funded by DSIT's Open Network Ecosystem (ONE) Competition. Overall, the project looks to build low-cost flexible alternatives to the mobile coverage available currently, installing high-capacity / high density mobile infrastructure in hard-to-reach rural locations, in a way that is sympathetic to the environment.

46. As part of the project, within Worcestershire, the Council and partners will be trialling and demonstrating the use of a "network on wheels" advanced wireless solution that can be deployed to support planned events throughout the year held across our county. This network will provide effective and stable connectivity to those running the event and businesses who provide goods and services to visitors.

47. If successful, it is also envisaged that this "network on wheels" could in future be deployed quickly to provide a support network to emergency services and other organisations in response to critical incidents such as flooding.

DCIA Project and Asset Reuse

48. Worcestershire has been part of the DSIT's Digital Connectivity Infrastructure Accelerator (DCIA) early adopter project, looking at digital asset management solutions for mapping and brokerage of publicly owned assets for use in the rollout of wireless communication networks. As well as looking at these solutions, the DCIA project worked with other government departments in relation to:

- providing standard contracts and BSI standards for Smart Infrastructure through:
- PAS 191: 2023 Multifunctional columns (Design and Specification) and
- PAS 190: Existing lighting & CCTV columns (Assessment for multi-functional use)

49. An equally important element of the project for the Council was to develop the understanding and experience internally, highlighting the importance of reusing public sector assets and to expedite telecommunications infrastructure deployments. The Digital Infrastructure and Connectivity Team is working with the Streetlighting Team to propose how findings can be taken forward.

Innovation Region River Severn Partnership

50. DSIT has invited bids into a £40m fund for local and regional authorities across the UK to establish themselves as '5G Innovation Regions' (5GIRs). These 5GIRs will look to support their wider programme to drive 5G adoption, with a focus on key sectors where there is local capability and opportunities.

51. Shropshire Council is the project lead and has submitted a bid, on behalf of those associated with the River Severn Partnership which includes the Council.

52. Funding will enable projects to:

- drive economic growth across the region by supporting the adoption of advanced wireless technologies for services based around local opportunities for growth,
- accelerate commercial investment in 5G and other advanced wireless technologies by aggregating and demonstrating demand,
- foster the 5G ecosystem enabling "learning by doing".

53. An announcement as to whether the River Severn Partnership Innovation Region bid is successful, is expected during November.

Purpose of the Meeting

The Panel is asked to consider the latest digital infrastructure information and:

- consider whether any further information or scrutiny is required at this time
- determine any comments or recommendations to the Cabinet Member with Responsibility for Economy, Infrastructure and Skills

Supporting Information

Appendix 1 – Superfast and other broadband statistics by UK, County, and Districts within Worcestershire

Contact Point

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Background Papers

In the opinion of the proper officer (in this case the Assistant Director for Legal and Governance) the following are the background papers relating to the subject matter of this report:

Agenda and Minutes of:

- [Economy Overview and Scrutiny Panel](#) 30 November 2022
- [Economy and Environment Overview and Scrutiny Panel](#) - 20 September 2021, 19 June 2020, 14 November 2018, 29 November 2017, 10 October 2016 and 30 September 2015
[Economy, Environment and Communities Overview and Scrutiny Panel](#) - 17 September 2014 and 20 May 2015
- [Cabinet](#) - 5 February 2015, 15 October 2015, 29 June 2017 and 2 February 2023
[Council](#) – 18 February 2021

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